Claims 1- 15 and 22 - 28 are pending. Claims 16 – 21 are canceled without waiver or prejudice to file in a continuing/divisional application.

The claims were rejected under § 103 in light of a combination of references including:

- Claims 1 – 3, 5, 9 – 10, 22, 24 – 25: Junqua et al. (6,314,398) taken with Philips et al. (6,519,562)
- Claim 4: Junqua et al. (6,314,398) taken with Philips et al. (6,519,562) and McDonough et al. (5,625,748)
- Claims 6, 11 – 13, 27 – 28: Junqua et al. (6,314,398) taken with Philips et al. (6,519,562) and Barclay et al. (5,960,399)
- Claims 7 – 8; 14, 23, 26: Junqua et al. (6,314,398) taken with Philips et al. (6,519,562) and Appelt et al. (6,601,026);
- Claim 15: Junqua et al. (6,314,398) taken with Philips et al. (6,519,562) and Agarwal et al. (5,842,196);

Each of the rejections are addressed in detail below. Based on the amendments and arguments the Applicants request favorable reconsideration.

Response to Rejections Claims 1 – 3, 5, 9 – 10, 22, 24 – 25 based on Junqua et al. (6,314,398) taken with Philips et al. (6,519,562)

The primary rejection is based on the Junqua et al. reference. The rejections are traversed based on the arguments presented below.

Fundamentally the Applicant submits that the Examiner has slightly misinterpreted some of the limitations in the claims. For instance, the term "search predicates" in claim 1 is a fairly well-known term in the art. The *predicate* of a search is clearly separate from the *subject* of the search. In the field of art involving queries these terms are clearly understood to be separate entities.

For example, in the query "what is a program" the individual words and phrases could certainly be the *subject* of the search. But no person skilled in the art would refer to them as *search predicates*. A search predicate, as the Examiner can determine from

examining printed and online references, refers to a separate logical operator or a comparison operation associated with the subject of the search. Thus for the query above, one search predicate could be a NEAR operator, so that the final structured query could take the form {"what is" NEAR "program"}. The NEAR operator specifies that the words (the subject) must have some logical relationship. In the invention of the present claims this relationship is gleaned by a natural language engine and then provided explicitly as an operator, or search predicate to a query engine. Other examples of predicates are also provided in the specification (i.e, AND, FREETEXT, CONTAINs operators) and yet others still would be apparent to skilled artisans.

The specification makes the distinction fairly clear between search predicates, and the terms (words, phrases) making up the subject of the search. See e.g., page 13 ll. 20+ which discusses the types of preferred form of search predicates used in the preferred embodiments as well as pages 29 and 46. The linguistic processing done by the natural language engine in this instance helps to determine the appropriate search predicates.

Given this clear delineation in concepts Applicant submits, therefore, that the structure identified by the Examiner as a search predicate in <u>Junqua et al.</u> – namely, the "key words" (see Office Action page 3) – cannot by themselves qualify under any reasonable interpretation as "search predicates" as suggested by the Examiner. Nonetheless, and so as to remove any ambiguity, Applicant has amended the claim to clarify that the search predicates are in fact logical operators as would be understood by those skilled in the art. This should obviate any further concern about the distinction between the two concepts.

As a second point Applicant also has considerable doubts on whether <u>Philips et al.</u> is properly combinable with <u>Junqua et al.</u> for the following reasons. First, the Examiner clearly recognizes that <u>Philips et. al.</u> is disclosing statistical processing solely for <u>speech recognition</u>, i.e., determining the identity of the words and phrases. While such techniques can be used in embodiments of the present invention, the present claims go beyond such limitations. Namely, the statistical processing is proposed as an operation for the <u>natural language engine</u> to help understand the words and phrases and find a final answer - a notion that neither reference teaches nor suggests. Moreover

there is simply no reasonable explanation or suggestion on how one skilled in the art would modify the <u>Junqua et al.</u> system to incorporate such functionality.

Based on these additional distinctions Applicant submits that claim 1 should be determined to contain allowable subject matter. Reconsideration is thus respectfully requested.

<u>Dependent claims 2 – 3, 5 and 9 - 10</u>: these claims should be allowable for the same reasons as claim 1. Moreover as to these claims, they include limitations which again refine the broader embodiments in a fashion not disclosed in the prior art.

That is, with respect to <u>claim 2</u>, the query is apparently done in a single pass in <u>Junqua et al.</u>, and no further customization using search predicates. Multiple frames are retrieved and they are examined. There does not appear to be any second level "query" made, let alone a customized version of the first level query.

With respect to <u>claim 3</u>, again, nothing in either reference suggests this type of operation. If the Examiner contends that the words in <u>Junqua et al.</u> are "search predicates" then it is impossible for a query of the type recited in claim 3 to be done "during" such time, because the words are not yet recognized during the prior speech recognition.

Concerning dependent <u>claims 9 and 10</u>: the Applicant is unsure of the Examiner's comments here, since the claim is describing an operation of an overall <u>natural language</u> based query system, not simply a speech recognition system which is only recognizing speech, not interpreting a meaning of the same. Nonetheless these claims should be allowable as per claim 1 above.

<u>Independent claim 22 and dependent claims 24 – 25</u> should be allowable for at least the same reasons already expressed above.

Rejection of Claim 4: Junqua et al. (6,314,398) taken with Philips et al. (6,519,562) and McDonough et al. (5,625,748)

Dependent claim 4: this claim should be allowable for the same reasons as claim 1. McDonough et al. does not cure any of the deficiencies of the other references in this regard. Furthermore McDonough et al. is apparently generally discussing a mapping of messages to topics. There is nothing in there to teach or suggest a specific term frequency calculation which is based on calculating a lexical distance between each word of the recognized query and the topic query entries.

Rejection of claims 6, 11 – 13, 27 – 28: Junqua et al. (6,314,398) taken with Philips et al. (6,519,562) and Barclay et al. (5,960,399)

Dependent claims 6, 11 – 13 and 27 – 28: these claims should be allowable for the same reasons as claims 1 and 22 above. Barclay et al. does not cure any of the deficiencies of the other references in this regard. Furthermore dependent claim 12 has been amended to make explicit that the data is optimized on a case by case basis, which should be uncontroversial given the Examiner's determinations in related application serial no. 10/864,357. The Barclay et al. system does not indicate any allowance for changing the nature of the data based on considering recognition latencies.

Moreover as concerns claim 28 at least, again, the citation to Barclay et al. is not quite accurate since the operations of the claim involve natural language processing, not just speech recognition. There is no suggestion in Barclay et al. of submitting such types of operations to multiple servers as set out in claim 28.

Rejection of claims 7 – 8; 14, 23, 26: Junqua et al. (6,314,398) taken with Philips et al. (6,519,562) and Appelt et al. (6,601,026)

Dependent claims 7, 8, 14, 23 and 26: these claims should be allowable for the same reasons as claims 1 and 22 above. Appelt et al. does not cure any of the

deficiencies of the other references in this regard. Thus, further scrutiny of such reference does not appear necessary at this time to examine its relevance to the additional limitations of these dependent claims, or whether it would have been obvious to combine the same with the other references.

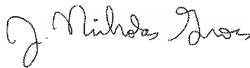Claim 15: Junqua et al. (6,314,398) taken with Philips et al. (6,519,562) and Agarwal et al. (5,842,196)

Dependent claim 15: this claim should be allowable for the same reasons as claim 1. Agarwal et al. does not cure any of the deficiencies of the other references in this regard. For this reason further scrutiny of such reference is deferred.

Conclusion

Applicant has addressed all the outstanding issues presented in the most recent Office Action in earnest fashion to place the claims in condition for allowance over the prior art. A petition and fee for a three (3) month extension of time is also enclosed. Please charge any fees due to deposit account no. 501-244.

Should the Examiner wish to discuss anything related to this case in person, feel free to contact the undersigned at any convenient time.

Respectfully submitted,

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